



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,140	09/30/2003	Christopher Evans	19111.0126	3825
23517 7590 12/19/2006 BINGHAM MCCUTCHEN LLP 3000 K STREET, NW BOX 1P WASHINGTON, DC 20007			EXAMINER MAHMOOD, REZWANUL	
			ART UNIT 2164	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			12/19/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/673,140	<b>Applicant(s)</b> EVANS ET AL.	
	<b>Examiner</b> Rezwanul Mahmood	<b>Art Unit</b> 2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is in response to the communication filed on September 21, 2006.

#### ***Response to Amendment***

2. Claims 1-9 are pending in this office action.
3. In view of the amendment filed on 09/21/2006, the objections specification has been withdrawn.
4. In view of the amendment, 35 U.S.C. 112 rejection on claim 2 has been withdrawn.
5. In view of the amendment, 35 U.S.C. 101 rejection on claims 1-9 have been withdrawn.

#### ***Response to Arguments***

6. Applicant's arguments filed on September 21, 2006 have been fully considered but they are not persuasive for the following reasons:

Applicant argues that Levine does not teach or even suggest the features "preparing a list of tables that are within the scope of the SQL statement but that are not referred by the SQL statement" and "prevention of unnecessary joins".

Examiner respectfully disagrees all of the allegations as argued. Examiner, in his previous office action, gave detail explanation of claimed limitation and pointed out exact locations in the cited prior art.

Examiner is entitled to give claim limitations their broadest reasonable

Art Unit: 2164

interpretation in light of the specification. See MPEP 2111 [R-1]

Interpretation of Claims-Broadest Reasonable Interpretation. During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

Levine teaches in column 4 lines 1-10, in column 6 lines 13-46, in column 13 lines 43-67, in column 14 lines 1-9, and in figure 2, a list of tables that are within the scope of the SQL statement but are not referred by the SQL statement, from which the user can select the tables used for the join. By selecting the tables and join types and the ordering of the join for the selected table, the user inherently prevents any unnecessary joins. The user can further edit the arrangement to have a proper table sequence.

For the above reasons, Examiner believed that rejection of the last Office action was proper.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2)

of such treaty in the English language.

8. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Levine (US Patent 6,640,221).

9. With respect to claim 1, Levine discloses a computer-implemented method of preventing execution of unnecessary joins between tables in a database, the method comprising the steps of:

- a. presenting a Structured Query Language (SQL) statement to the database, the SQL statement having a scope that extends to a set of tables in the database and returning a set of results from the database (Levine: Abstract, lines 1-14; Column 4, lines 1-10; Column 6 lines, 13-46; Column 13, lines 43-67; Column 14, lines 1-9; Figure 2; Figure 6);
- b. preparing a list of tables that are within the scope of the SQL statement but that are not referred to by the SQL statement (Levine: Column 4, lines 1-10; Column 6 lines, 13-46; Column 13, lines 43-67; Column 14, lines 1-9; Figure 2);
- c. removing tables that must be accessed in order to return the set of results from the list in accordance with a predetermined set of rules (Levine: Column 4, lines 1-10; Column 6 lines, 13-46; Column 13, lines 43-67; Column 14, lines 1-9; Figure 2); and,
- d. preventing execution of joins involving any of the tables remaining in the list (Levine: Column 4, lines 1-10; Column 6 lines, 13-46; Column 13, lines 43-67; Column 14, lines 1-9; Figure 2; since the tables required by the

query are selected from the list, it is inherent that unselected tables are prevented from participating in the joins).

The Levine reference teaches about selecting joins which inherently prevents unnecessary joins between tables.

10. With respect to claim 2, Levine discloses a computer-implemented method according to claim 1, wherein the predetermined set of rules includes allowing removal of a table from the list if this table is part of a join chain (Levine: Column 4, lines 1-10; Column 6 lines, 13-46; Column 13, lines 43-67; Column 14, lines 1-9; Figure 2).

11. With respect to claim 3, Levine discloses a computer-implemented method according to claim 1, wherein the predetermined set of rules includes a rule allowing removal of a table from the list if this table forms the detail table in a join between a master table and a detail table (Levine: Column 4, lines 1-10; Column 6 lines, 13-46; Column 13, lines 43-67; Column 14, lines 1-9; Figures 1-3, and 6-8; all the required tables are selected, inherently allowing removal of any table that forms the detail table in a join between a master table and a detail table).

12. With respect to claim 4, Levine discloses a computer-implemented method according to claim 1, wherein the predetermined set of rules includes a rule allowing removal of a table from the list if detail item values might not exist in a master table joined to a detail table (Levine: Column 4, lines 1-10; Column 6 lines, 13-46; Column 13,

lines 43-67; Column 14, lines 1-9; Figures 1-3, and 6-8; all the required tables are selected, inherently allowing removal of any table if detail item values might not exist in a master table joined to a detail table).

13. With respect to claim 5, Levine discloses a computer-implemented method according to claim 1, wherein the predetermined set of rules includes a rule allowing removal of a table from the list if that table has a mandatory filter (Levine: Column 4, lines 1-10; Column 6 lines, 13-46; Column 13, lines 43-67; Column 14, lines 1-9; Figures 1-3, and 6-8; all the required tables are selected, inherently allowing removal of any table that has a mandatory filter).

14. With respect to claim 6, Levine discloses a computer-implemented method according to claim 4, wherein the predetermined set of rules further includes a rule preventing removal of a table from the list that would otherwise be allowed, if the join is an outer join on a master table (Levine: Column 4, lines 1-10; Column 6 lines, 13-46; Column 13, lines 43-67; Column 14, lines 1-9; Figures 1-3, and 6-8; all the required tables can be selected and also the type of join can be specified, inherently allowing or preventing removal of any table if the join is a outer join on a master table).

15. With respect to claim 7, Levine discloses a computer-implemented method according to claim 5, wherein the predetermined set of rules further includes a rule preventing removal of a table from the list that would otherwise be allowed, if the join is

Art Unit: 2164

an outer join on a master table (Levine: Column 4, lines 1-10; Column 6 lines, 13-46; Column 13, lines 43-67; Column 14, lines 1-9; Figures 1-3, and 6-8; all the required tables can be selected and also the type of join can be specified, inherently allowing or preventing removal of any table if the join is a outer join on a master table).

16. With respect to claim 8, Levine discloses a computer program comprising computer program code means adapted to perform the steps of claim 1 when said program is run on a computer (Levine: Column 5, lines 26-30).

17. With respect to claim 9, Levine discloses a computer program product comprising program code means stored on a computer readable medium for performing the method of claim 1 when said program product is run on a computer (Levine: Column 5, lines 32-37).

### ***Conclusion***

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any



Art Unit: 2164

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Gutierrez-Rivas reference (US Patent 6,553,371) teaches about selecting table joins. The Kumar reference (US Publication 2003/0088548) teaches about extracting data from a database using a reduced query.

**Contact Information**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rezwanul Mahmood whose telephone number is (571)272-5625. The examiner can normally be reached on M - F 10 A.M. - 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571)272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Rezwanul Mahmood  
Examiner  
Art Unit 2164

December 9, 2006

  
SHAHID ALAM  
PRIMARY EXAMINER